

## **REMARKS**

Claims 12-14 and 23-33 are pending and rejected. Claims 12, 14, 23, and 32-33 are amended.

Applicants disagree with the Examiner's objection to the specification. The Examiner states

The original claims specify E to be selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules....However, the specification discloses E to be: somatostatin, heat sensitive bacterioendotoxin,...and carbohydrate receptor binding molecules.

Applicants respectfully assert there is no discrepancy. In the original claims, Applicants reiterated "receptor binding molecules" with each descriptor (somatostatin, carbohydrate, etc.). In the specification, Applicants grouped the descriptors with one recitation of "receptor binding molecules". Thus, Applicants assert that the claims are supported in the specification, and have proper antecedent basis.

## **CLAIM REJECTIONS UNDER 35 U.S.C. § 112**

The Examiner states "...the author's description of what one of ordinary skill would consider to be within the scope of the instant claims, and how one of ordinary skill would go about determining it is not commensurate in scope with the claims' actual language." The Examiner states "very narrow examples are provided by the Declarant as to what, for example, "carbohydrate receptor binding molecules," "steroid receptor binding molecules" and "somatostatin receptor binding molecules" would encompass"... "It is clear that applicants wish for "E" in the instant claims to embrace much more than only examples provided by Dr. Buolamwini in the declaration at hand (and Erlanger, in the previously filed declaration".

Regarding Applicants' use of examples, Applicants were attempting to comply with the Examiner's request to demonstrate compounds that could satisfy the claim limitations. Such examples were representative only, not limiting. Applicants' examples do not and should not restrict their claim scope, although the Examiner indicates this would be preferable ("If the claims actually recited only these *examples* provided by Dr. Bolulamwini of each alternative recited in the definition of "E," the rejections at hand likely might not have been maintained").

The Examiner rejects because "...the existence of molecular structures corresponding to the full scope of each alternative recited in the definition of variable "E" is *conjecture* is exactly one of the reasons that the rejections at hand have been set forth."

Applicants' position has steadfastly remained that "E" is a targeting group that serves to locate the sulfenate photosensitizer, and has amended claims 12, 14, 23, 32, and 33 to clarify this. If E has a structure that does not bind the claimed receptors, the claim limitations will not have been met because there will be no sulfenate at the target site, which is required for the step

of "...exposing said target tissues with the light of wavelength between 300 and 950 nm with sufficient power and fluence rate such that the sulfenate causes necrosis or apoptosis of the target tissue." Thus, the molecular structures corresponding to the full scope of each alternative recited in the definition of variable "E" is not conjecture. Rather, it is established by a straightforward test: the sulfenate either does or does not bind at the target site, so that exposure to light either does or does not cause necrosis or apoptosis of the target tissue. This is precisely what the claim recites.

Applicants agree that

...should the present claims be patented, [Applicants] would have the right to exclude others from practicing a method according to the instant claims, where "E" is some novel molecular structure which was neither conceived of by the applicants nor described in the literature. Such a method (where "E" is some structural entity neither conceived of by applicants nor described in the literature) would be an invention in its own right,...

Applicants, however, disagree with the Examiner's statement

...yet [E as a structural entity] would be embraced by applicants' claims. Should the present claims be patented, applicants could preempt the future work of others.

Contrary to the Examiner's assertion, Applicants claim "E" only as part of Applicants' sulfenate photosensitizer. Any method using "E" apart from this would not "be embraced by applicants' claims, and Applicants could therefore not "preempt the future work of others".

Should the above arguments not be persuasive, Applicants respectfully reiterate their November 23, 2005 request, which the Examiner has not addressed to date. Specifically:

With this [November 23, 2005] submission, applicants' position is supported by two Declarations, each made under oath and penalty of perjury, from each of two independent third parties. Applicants' position is further supported by two Declarations made under oath and penalty of perjury from an inventor. Thus, applicants have provided four Declarations of record that contain specific examples supporting applicants' position that the claimed methods are enabled and described. Applicants therefore respectfully request a Notice of Allowance. If the Examiner maintains his rejection in view of this extensive record, applicants respectfully request the Examiner to provide an affidavit under 37 C.F.R. 1.104(d)(2) which states: 1.104 Nature of examination...(d) Citation of references....

(2) When a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons.

After two inventor Declarations, Applicants obtained a third-party unaffiliated Declarant (Dr. Erlanger of Columbia University). Then, because the Examiner found Dr. Erlanger had "no special expertise in medicinal chemistry, small molecule ligands, or in organic chemistry generally", Applicants provided yet another third-party unaffiliated Declarant, one who holds a Ph.D. and full professorship in Medicinal Chemistry.

Still, the Examiner dismisses this Declarant's analysis, rationale, and conclusions of enablement and description. As previously stated, Applicants have now provided four declarations, two from independent third parties. Each Declarant has provided, under oath and penalty of perjury, his opinion that the claims are described and enabled, and how and why they are so described and enabled, to allow one skilled in the art to practice the claimed method. In fact, the Examiner admits that that "the methodology by which Dr. Boulamwini proposes to practice the invention...is not per se implausible...".

Applicants thus once again respectfully request the Examiner's affidavit under 37 C.F.R. 1.104(d)(2) and his curriculum vitae, as have been submitted with each of Applicants' Declarations, so that Applicants may know the basis for the facts within the Examiner's personal knowledge and be subject to contradiction or explanation, as 37 C.F.R. 1.104(d)(2) permits.

#### **CONCLUSION**

The application is believed to be in complete condition for allowance with no fees due. If fees are necessary, the Examiner is authorized to charge them to Deposit Account 23-3000. The Examiner is invited to contact Applicants' undersigned representative with questions.

Respectfully submitted,  
WOOD, HERRON & EVANS, L.L.P.  
/Beverly A. Lyman/

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